Amendments to the Claims:

This listing of claims will replace all prior listings thereof.

1. (Currently Amended) A method for assembling a modulatable ~~fusion~~ molecule, comprising:

inserting randomly an insertion nucleic acid sequence into an acceptor nucleic acid sequence, wherein the insertion nucleic acid sequence and the acceptor nucleic acid sequence each ~~comprise~~ encode a polypeptide that comprises a state, thereby generating a nucleic acid fusion molecule; and

selecting a nucleic acid~~fusion~~ molecule that encodes a polypeptide wherein the state of the polypeptide encoded by the acceptor nucleic acid is coupled to the state of the polypeptide encoded by the insertion nucleic acid, or the state of the polypeptide encoded by the insertion nucleic acid is coupled to the state of the polypeptide encoded by the acceptor nucleic acid~~wherein insertion couples the state of the insertion sequence to the state of the acceptor sequence, and wherein the fusion molecule comprises a new state~~.

2. (Original) The method according to claim 1, wherein the state of the insertion sequence is modulated.

3. (Original) The method according to claim 2, wherein the state of the insertion sequence is modulated in response to a change in the state of the acceptor sequence.

4. (Original) The method according to claim 1, wherein the state of the acceptor sequence is modulated.

5. (Original) The method according to claim 4, wherein the state of the acceptor sequence is modulated in response to a change in the state of the insertion sequence.

6. (Cancelled)

7. (Currently Amended) A method for assembling a modulatable~~fusion~~ molecule comprising an insertion site, the method comprising:

inserting randomly an insertion nucleic acid sequence into an acceptor nucleic acid sequence, thereby generating a modulatable~~fusion~~ molecule, wherein the insertion nucleic acid sequence and the acceptor nucleic acid sequence each comprise a state;

generating a duplication, deletion, or substitution, at the insertion site in the acceptor nucleic acid sequence; and;

selecting a modulatable~~fusion~~ molecule wherein insertion couples the state of the insertion nucleic acid sequence to the state of the acceptor nucleic acid sequence, and wherein the modulatable~~fusion~~ molecule comprises a new state.

8. (Original) The method according to claim 7, wherein the generating step occurs prior to the inserting step.

9-13. (Canceled)

14. (Currently Amended) The method of claim 1 wherein the modulatable~~fusion~~ molecule can switch between at least an active state and a less active state.

15 - 44. (Canceled)

45. (Currently Amended) The method of claim 1, wherein the inserting randomly an insertion nucleic acid sequence into an acceptor nucleic acid sequence is carried out by ~~comprises~~ one or more of a method selected from: nuclease treatment, mechanical shearing, chemical treatment or radiation treatment.

46. (Currently Amended) The method of claim 1, 7, 14, or 45, wherein the method further comprises generating a duplication, deletion, substitution at the insertion site in the acceptor nucleic acid sequence.

47. (Previously Presented) The method of claim 45, wherein nuclease treatment comprises digestion with a 3' to 5' exonuclease.